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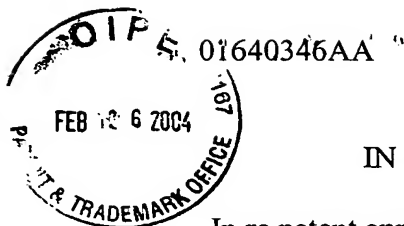
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01640346AA "

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Viehland et al.

Application No.: 10/687,970

Date Filed: October 20, 2003

For: MAGNETOELECTRIC MAGNETIC FIELD SENSOR WITH LONGITUDINALLY
BIASED MAGNETOSTRICTIVE LAYER



Group Art Unit: 1773

Examiner: Not Assigned

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Under the provisions of 37 C.F.R. 1.97 through 1.98 and pursuant to applicant's duty of disclosure under 37 C.F.R. 1.56, applicant respectfully brings the following documents listed in the attached from PTO-1449, to the attention of the Examiner in charge of the above-identified application. Copies of the listed documents is provided herewith for the convenience of the Examiner.

The present Information Disclosure Statement is being filed no later than three months from the application's filing date and/or before the mailing date of an Office Action on the merits, whichever is later.

This citation does not constitute an admission that the references are relevant or material to the claims. They are only cited as constituting related art of which the applicant is aware.

It is respectfully requested that the documents be considered by the Examiner and formally made of record in this application.

Respectfully submitted,

Michael E. Whitham
Reg. No. 32,635

Whitham, Curtis & Christofferson, P.C.
11491 Sunset Hills Road, Suite 340
Reston, VA 20190
(703) 787-9400
CUSTOMER NUMBER 30743

INFORMATION DISCLOSURE CITATION

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ATTY DOCKET NO.

01640346AA

SERIAL NO.

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FILING

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GROUP

1773

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Clarke et al.; "The Impact of High-Temperature Superconductivity on SQUID Magnetometers"; Science 242 (4876); pgs. 217-223; Oct. 14, 1988
		Nan et al.; "A Three-Phase Magnetoelectric Composite of Piezoelectric Ceramics, Rare-Earth Iron Alloys, and Polymer"; Applied Physics Letters; Vol. 81, No. 20; pgs. 3831-3833; Nov. 11, 2002

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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			Avellaneda et al.; "Magnetoelectric Effect in Piezoelectric/Magnetostrictive Multilayer (2-2) Composites"; Journal of Intelligent Material Systems and Structures, Vol. 5; pgs. 501-513; July 1994
			Bichurin et al.; "Theory of Low-Frequency Magnetoelectric Effects in Ferromagnetic-Ferroelectric Layered Composites"; Journal of Applied Physics, Vol. 92, No. 12; pgs 7681-7683; Dec. 15, 2002

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OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

			Srinivasan et al.; "Magnetoelectric Effects in Bilayers and Multilayers of Magnetostrictive and Piezoelectric Perovskite Oxides"; Physical Review B, Vol. 65, 134402; 2002
			Nan et al.; "Coupled Magnetic-Electric Properties and Critical Behavior in Multiferroic Particulate Composites; Journal of Applied Physics, Vol.94, No. 9; pgs 1-7; Nov. 1, 2003

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			Srinivasan et al.; "Giant Magnetoelectric Effects in Layered Composites of Nickel Zinc Ferrite and Lead Zirconate Titanate"; Solid State Communications 124; pgs 373-378; 2002
			Ryu et al.; "Magnetoelectric Properties in Piezoelectric and Magnetostrictive Laminate Composites"; Japan Journal of Applied Physics, Vol 40; pgs 4948-4951; 2001

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